

REMARKS

Claims 1, 10, 13, 20, and 26 are amended, no claims are canceled, and no claims are added; as a result, claims 1-28 are now pending in this application.

No new matter has been added through the amendments to claims 1, 10, 13, 20, and 26. Support for the amendments to claims 1, 20, and 26 may be found throughout the specification, including but not limited to the specification at page 4, line 16 through page 6, line 21. Claim 10 was merely re-written in independent form to include the subject matter of claim 9, from which claim 10 previously depended. Claim 13 was merely re-written in independent form to include the subject matter of claim 9, from which claim 13 previously depended.

In the Title

The title was objected to as not descriptive, and a new title was required that is clearly indicative of the invention to which the claims are directed.

Applicants have amended the title to include, "APPARATUS, SYSTEM, AND METHOD TO ENABLE TRANSPARENT MEMORY HOT PLUG/REMOVE." (Emphasis added).

Thus, Applicants have amended the title in order to clearly indicate the invention to which the claims are directed. However, if the Examiner believes that the amendment does not overcome this objection, the Examiner is invited to call the Applicants' representatives to discuss this objection in order to accelerate prosecution of the application.

Allowable Subject Matter

Claims 10-15 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have re-written claims 10 and 13 to be independent claims. Independent claim 10 now includes all of the subject matter from the base claim and any intervening claims from which claim 10 previously depended, and independent claim 13 now includes all of the subject matter from the base claim and any intervening claims from which claim 13 previously depended.

Claims 11-12 depend from now independent claim 10, and claims 14-15 depend from now independent claim 13, and so include all of the subject matter of the independent claim from which they depend, and more.

Applicants submit that independent claims 10-15 are allowable, and so respectfully request a notification of allowance of claims 10-15.

§103 Rejection of the Claims

Claims 1-9 and 16-28

Claims 1-9 and 16-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mott et al. (U.S. 6,574,695) in view of Burns et al. (U.S. 7,000,042). Applicants respectfully traverse the rejection of claims 1-9 and 16-28.

The rejection fails to make a *prima facie* showing of obviousness.¹ The proposed combination² of Mott et al. and Burns et al. fails to describe or suggest the subject matter as included in claims 1-9 and 16-28.

By way of example, but not limited to this example, independent claim 1 as now amended includes:

an expander memory bridge location, the expander memory bridge location including a location for coupling to and allowing installation of an expander memory bridge;
a memory coupled to the expander memory bridge location;
and
a controller coupling the processor to the expander memory bridge location, the controller including intercept logic to intercept and block communication from the processor to the expander memory bridge location and to emulate an expander memory bridge including responding to the processor regardless of whether the expander memory bridge is or is not installed at the location. (Emphasis added).

¹ The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. ____ , 2 (2007) citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966). (Emphasis added). The reference (or references when combined) must teach or suggest all the claim elements. M.P.E.P. § 2142 (citing *In re Yaecq*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

² Applicants do not agree or admit that any combination of Mott et al. and Burns et al. is possible.

Thus, independent claim 1 includes, "an expander memory bridge location, the expander memory bridge location including a location to couple to and allow installation of an expander memory bridge."

In contrast to independent claim 1, Mott et al. concerns a bus bridge 24 coupling a local bus 23 to a PCI bus 25,³ and boards 26 and 27 coupled to PCI bus 25, wherein board 26 includes bus bridge 30, which is used to couple ASICs 28 and 29 to compact PCI bus 25.⁴ However, there is no description or suggestion in Mott et al. of, "an expander memory bridge location, the expander memory bridge location including a location to couple to and allow installation of an expander memory bridge," as included in independent claim 1.

In addition, there is no description or suggestion in Mott et al. of, "a controller coupling the processor to the expander memory bridge location, the controller including intercept logic to intercept and block communication from the processor to the expander memory bridge location and to emulate an expander memory bridge including responding to the processor regardless of whether the expander memory bridge is or is not installed at the location," as included in independent claim 1.

Also in contrast to independent claim 1, Burns et al. concerns a segmental bus 140 provided for grouping the various storage units 60 into arrays,⁵ wherein expanders 160-165 are provided for segmenting the bus 140 depending on the particular array configuration.⁶ However, there is no description or suggestion in Burns et al. for example of, "an expander memory bridge location, the expander memory bridge location including a location to couple to and allow installation of an expander memory bridge," as in independent claim 1 and missing from Mott et al.

Further, there is no description or suggestion in Burns et al. of, "a controller coupling the processor to the expander memory bridge location, the controller including intercept logic to intercept and block communication from the processor to the expander memory bridge location and to emulate an expander memory bridge including responding to the processor regardless of whether the expander memory bridge is or is not installed at the location," as also included in independent claim 1 and as missing from Mott et al.

³ See Mott et al. at column 3, lines 49-50.

⁴ See Mott et al. at column 3, lines 58-64.

⁵ See Burns et al. at column 5, lines 12-13.

⁶ See Burns et al. at column 5, lines 21-23.

Therefore, neither Mott et al. nor Burns et al., either alone or in combination, describe or suggest all of the subject matter included in independent claim 1, and so the proposed combination of Mott et al. and Burns et al. fails to meet the burden required for establishing a *prima facie* case of obviousness with respect to independent claim 1.

There are further examples of claimed subject matter against which the proposed combination of Mott et al. and Burns et al. has failed to make a *prima facie* showing of obviousness:

Independent claim 20 as now amended includes:

A method comprising:
intercepting and blocking communications from a processor to an expander memory bridge;
emulating the expander memory bridge including responding to the processor regardless of whether the expander memory bridge is or is not installed at the location;
and
setting a disable intercept bit to stop interception and blocking of communications from the processor to the expander memory bridge.
(Emphasis added).

Independent claim 26 as now amended includes:

A system comprising:
a processor;
an expander memory bridge location;
a memory coupled to the expander memory bridge location;
a controller including intercept logic to intercept and block communication from the processor to the expander memory bridge location and to **emulate an expander memory bridge including responding to the processor regardless of whether the expander memory bridge is or is not installed at the location;**
a display coupled to the processor; and
a storage device coupled to the processor.
(Emphasis added).

For reasons analogous to those stated above with respect to independent claim 1, independent claims 20 and 26 include subject matter not described or suggested by the proposed combination of Mott et al. and Burns et al, and so the proposed combination of Mott et al. and

Burns et al. fails to meet the burden required for establishing a *prima facie* case of obviousness with respect to independent claims 20 and 26.

In another example of claimed subject matter against which the proposed combination of Mott et al. and Burns et al. has failed to make a *prima facie* showing of obviousness, independent claim 9 includes:

A method comprising:

intercepting and blocking a status request to a device, **regardless of whether the device is installed**; and responding to the status request.

(Emphasis Added)

The Office Action has not proposed a combination of Mott et al. and Burns et al. where there is a description or suggestion of, "intercepting and blocking a status request to a device, **regardless of whether the device is installed**," and further "responding to the status request," all as included in independent claim 9.⁷ (Emphasis added). Thus, the Office Action fails to meet its burden for establishing a *prima facie* case of obviousness with respect to independent claim 9.

In a still further example of claimed subject matter against which the proposed combination of Mott et al. and Burns et al. fails to make a *prima facie* showing of obviousness, independent claim 23 includes:

A method comprising:

- receiving control from an operating system after an interrupt;
- polling a device plugged-in bit;
- directing removal of a device, if the device plugged-in bit is active;
- polling the device plugged-in bit; and
- returning control to the operating system when the device plugged-in bit is inactive.

⁷ In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified. 37 C.F.R. § 1.104 (c)(2).

The Office Action has not proposed a combination of Mott et al. and Burns et al. where there is a description or suggestion of the specific subject matter of independent claim 23, as quoted above.⁸

Thus, the Office Action, in rejecting independent claims 9 and 23, fails to meet its burden to point out where in either Mott et al. or Burns et al., or in the proposed combination of Mott et al. and Burns et al., there is a description or suggestion of the subject matter as included in independent claims 9 and 23. Applicants' representatives have carefully examined Mott et al. and Burns et al., and fail to find in these documents, either taken alone or in combination, a description or suggestion of the subject matter as included in independent claims 9 and 23. Therefore, the proposed combination of Mott et al. and Burns et al. fails to describe or suggest the subject matter of independent claims 9 and 23, and the Office Action has therefore failed to meet its burden for establishing a *prima facie* case of obviousness with respect to independent claims 9 and 23.

Claims 2-8 depend from independent claim 1, and so include all of the subject matter of independent claim 1, and more. Claims 16-19 depend from independent claim 9, and so include all of the subject matter of independent claim 9, and more. Claims 21-22 depend from independent claim 20, and so include all of the subject matter of independent claim 20, and more. Claims 24-25 depend from independent claim 23, and so include all of the subject matter of independent claim 23, and more. Claims 27-28 depend from independent claim 26, and so include all of the subject matter of independent claim 26, and more.

For at least the reasons stated above with respect to independent claims 1, 9, 20, 23, and 26, the proposed combination of Mott et al. and Burns et al. fails to describe or suggest the subject matter of independent claims 2-8, 16-19, 21-22, 24-25, and 27-28, and so the rejection based on the proposed combination of Mott et al. and Burns et al. fails to meet its required burden for establishing a *prima facie* case of obviousness with respect to claims 2-8, 16-19, 21-22, 24-25, and 27-28.

Further, because claims 16-19 depend from independent claim 9, and claims 24-25 depend from independent claim 23, for at least the reasons stated above with respect to

⁸ *Id.*

independent claims 9 and 23, the Office Action fails to meet its burden for establishing a *prima facie* case of obviousness with respect to claims 16-19 and 24-25 respectively.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claims 1-9 and 16-28.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely object to such reliance on Official Notice, and reserve all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserve all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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Title: APPARATUS, SYSTEM, AND METHOD TO ENABLE TRANSPARENT MEMORY HOT PLUG/REMOVE (as amended)

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Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney ((612) 371-2132) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9th day of May 2007.

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